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Abstract

The current research compares two theoretical models borrowed from social psychology (theory of planned behavior and procedural justice) to predict intentions to make use of a drug court. Medicaid-eligible substance users answered a number of questions regarding their intentions to use a drug court in the future, including items from planned behavior and procedural justice scales. When procedural justice was considered alone, only trustworthiness predicted intention to use drug courts. When planned behavior was considered alone, only deliberative attitudes predicted the intention. After combining the two models, deliberative attitudes from the theory of planned behavior were the only significant predictor of likelihood to make use of a drug court. Recommendations for future study of this area center on conceptualization of procedural justice and the use of alternative samples.

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Introduction

Drug courts combine principles in law and of psychology by integrating treatment doctrine with a structured legal environment (Bouffard & Taxman, 2004). Bouffard and Taxman describe drug courts as attempting to integrate law and psychology, in that they incorporate treatment principles into a substance abuse recovery strategy meant to prevent recidivism. The courts are highly structured, monitoring offenders using both treatment and sanction methods. Overall, drug courts integrate treatment models into the criminal justice system.

The key components of a drug court include (1) the integration of drug/alcohol treatment with justice system case processing, (2) the use of a non-adversarial approach and the promotion of public safety and defendant rights, (3) the early identification and placement of eligible participants into the program, (4) the provision of access to a range of treatment/rehabilitation services, (5) the frequent monitoring and drug testing of participants, (6) the coordinated strategy for responding to participant compliance, (7) the requirement of ongoing interaction between each participant and the justice system, (8) the evaluation of program effectiveness, (9) the promotion of future drug court planning via interdisciplinary education, and (10) the augmentation of drug court effectiveness via collaboration between drug courts, public agencies, and community organizations (National Association of Drug Court Professionals, 1997).

Coercion

It is difficult to study the effects of drug courts, in part, because the decision to use a drug court often involves some coercion. Offenders may decide to make use of drug courts because the alternative is prosecution in the traditional criminal justice system with the possibility of jail time as an outcome. Other drug treatment programs have used threats of legal sanction to encourage participation (Hepburn & Harvey, 2007). Studies in this area have demonstrated that coerced participants are less likely to believe that they are in need of treatment, and are less motivated to participate (Hepburn & Harvey, 2007). Drug courts also operate on the

basis of coercion, and thus necessarily assume that benefits can be obtained by these means (Hepburn & Harvey, 2007).

It may be that participants who face threats of legal sanction may perform better (i.e. stay in the program longer and show higher completion rates) than those who do not, due to fear of imprisonment. However, it is possible that positive outcomes are more likely for individuals who approach drug courts to satisfy a desire to obtain treatment rather than those who choose drug court to avoid punishment (jail time). Hepburn and Harvey (2007) compared two drug courts, one of which used coercion by imposing a 120-day suspended sentence on participants, and the other of which was prohibited from using legal coercion. The researchers found that there were no differences between participants in the two drug courts, and thus that the threat of legal sanction had no influence on program retention or program completion. This study ended with a call for more research into what may motivate program retention and completion, and the current study seeks to build on this by determining what motivates participants to make use of a drug court initially.

Some researchers have examined the motivation of drug court participants. Cosden and colleagues (2006) found that participants' stated motivation (measured by participants' reports of being troubled by their drug problems and seeing a need for treatment) was related to severity of substance problem (such that participants with more severe drug problems reported more motivation for treatment), although it only accounted for a small proportion of the variance in drug court completion and had no relation to recidivism. However, these researchers measured motivation for treatment and not motivation to participate in drug court; the current study seeks to expand these findings by determining what motivates individuals to make use of drug courts.

Drug court participants may have a number of different reasons for entering drug court, and these reasons may influence the efficacy of the treatment process. Maxwell (2000) examined participants in a court-mandated drug treatment program and found that family attachment is negatively related to legal pressure (participants' perceptions of sanction threats). Legal pressure, in turn, was positively related to program retention. Thus, the efficacy of drug courts may depend on a number of variables.

While the overall efficacy evaluation research in this area is equivocal, some evidence does show that drug courts reduce use (both for graduates and those who do not complete the process), maintain high retention rates, and reduce recidivism (Cooper, 2003). Cooper reports that, compared to those who do not make use of a drug court, offenders who are in a drug court program show reduced measures of drug use and criminal activity. Other studies demonstrate effects that are more questionable. For example, Miethe, Lu, and Reese (2000) found significantly increased recidivism rates among drug court participants as compared to offenders who did not participate in a drug court. This effect persisted even after controlling for a host of other individual difference factors.

More recently, a meta-analysis by Wilson, Mitchell, and MacKenzie (2006) revealed that 50 studies containing 55 evaluations of drug courts (both experimental and quasi-experimental) tentatively showed that participation in drug court results in reduced recidivism compared with traditional legal alternatives. The researchers found that across all of these studies drug courts resulted in a 26% drop in recidivism, and in the two high-quality randomized studies included in the sample drug courts resulted in a 14% reduction in reoffending. Due to the weakness in design of many of the studies included in their sample, the researchers concluded that their results showed weak support for the effectiveness of drug courts in terms of reducing recidivism in participants.

The current research examines in some detail the decision to make use of a drug court. We asked, when the option is available, what psychological factors make a person more or less voluntarily likely to take advantage of it. The current study compares two theoretical models that we borrowed from social psychology to predict drug users' intentions to use drug courts.

Theory of Planned Behavior

The theory of planned behavior provides one approach to predicting whether substance abusers might decide to make use of drug courts. The theory of planned behavior posits that behavior is a function of an individual's intention to behave, which itself is moderated by perceptions of control, attitudes towards the behavior, and perceptions of social pressure (Ajzen, 2002). Intention to behave in the

context of the current study refers to the intention to make use of a drug court. In this model, such an intention would be predicted by attitudes toward the use of drug courts (i.e. the user's evaluation of how it would feel to make use of a drug court), as well as normative beliefs regarding the behavior (e.g. how it would make friends or family feel if the offender made use of a drug court). The more positive the attitude and normative pressure, the more likely is the decision maker to take advantage of a drug court. However, if the offender has little perceived control over the decision process and its outcomes, this perceived lack of personal efficacy can offset even the strongest intentions. These structures, combined with the perceived importance of the structures, should predict intention, and therefore eventual use of drug courts (Ajzen, 2002).

Kleinman, Millery, and Scimeca (2002) investigated the usefulness of the theory of planned behavior as compared with other help-seeking models in predicting long-term use of drug treatment in a sample of drug users. These researchers found that the strongest predictors of participation in long-term treatment were self-control, attitudes toward the use of treatment, intention to enter treatment, and various moderating demographic characteristics. They concluded that the theory of planned behavior was the most effective model for predicting the use of long-term drug treatment. We set out to test their conclusions in the context of the choice to use one specific type of treatment, drug court, and compare their findings with those that are more consistent with procedural justice theory.

Procedural Justice

Attitudes alone might not be the most important predictor of drug court use. It is likely that offender's perceptions of the fairness of the process might act independently or in combination with attitudes toward drug court to predict choice. We turned to the group relational model of procedural justice, which suggests that people evaluate fairness based on their judgments of whether the authorities are trustworthy, whether the authorities are neutral, and whether they feel that the authorities treated them with the dignity, respect, and appropriate level of status due to a valued member of their social group (Tyler, 2000).

Young and Belenko (2002) argued for the use of a procedural justice approach in drug treatment programs. They studied the program retention rate of drug users in long-term treatment facilities as a function of the users' perceptions of fairness. Results showed that higher retention covaried with procedural justice expectations. For example, offenders were more likely to remain in treatment when they understood the conditions of their participation in the treatment program and when they received consistent messages about the value of the program. In addition, they stayed in treatment when judges framed orders as behavioral contracts and when offenders understood the contingencies of their actions as stable consequences (i.e. the return to custody in the event of failure). From these findings, it is a small step to hypothesize that offenders who expect that participating in drug court will make them feel valued and respected will be more likely to choose to participate in drug court treatment.

The Current Research

The first step in this program of research was to determine whether people who have attitudes that are more positive toward drug courts, or perceive drug courts as more just, are more likely to participate. More specifically we asked "Do offenders who have more positive attitudes about drug courts choose to use them, or do users who see drug courts as more just choose to use them, or do both factors play equally important roles in the choice to use drug courts?". We set out to test these possibilities with a community sample of people who use substances.

Method

Participants

After obtaining a list of all Medicaid-eligible citizens of Nebraska, we randomly selected 3200 participants from this list and mailed each of them a user survey. The survey was part of a needs assessment (a measure of substance abuse) to help set substance abuse policy in the state. We received 1001 completed surveys, for

a response rate of 31%. Of these participants, 166 indicated (by self-report) that they had a substance abuse problem, and they became the sample for the current research. This sample consisted of 59 (36%) men and 107 (65%) women, with ages ranging from 18 to 83 (M=41). One hundred and thirty-eight (83%) of participants identified as White, 15 (9%) as Black, 1 (1%) as Mexican-American, 1 (1%) as Asian, and 11 (7%) as other. Health and Human Services mailed a check for 10 dollars to each participant who had completed and returned a survey.

Materials and Procedure

After reading the drug user survey instructions, participants supplied demographic information and answered several sections on the survey that were relevant to the substance abuse needs assessment in Nebraska but not relevant to the current research.[1] Next, participants read a detailed definition of drug courts. The definition read as follows:

> A drug court is a special court that deals only with cases involving substance-abuse. The purpose of the drug court is not to prosecute drug users. Instead, it tries to identify drug users early and help them get over their drug problems. A drug court provides supervision, drug testing, and a complete list of treatment services to offenders. Drug court programs use a team of judges, lawyers, treatment specialists, probation officers, police, teachers, and counselors to make offenders deal with their alcohol and other drug abuse problems. The judge heads the team and meets frequently with the participant trying to help him or her to be sober and responsible. Drug courts operate on a set of rules that are firm, easy to understand, and within the participant's control. The rules are based on the participant's actions. The treatment specialists report the participant's behavior to the judge, who rewards the participant for success and punishes the participant for

1. Information about the first part of the survey is obtainable from the second author of this paper.

> failure. Participants have clear choices and the drug court helps them take control of their own healing. If an offender participates successfully in the treatment and regularly tests negative for use, the drug court can drop the charges, shorten a sentence, or offer some lesser penalty.

Following this definition, participants indicated whether they had ever been defendants in a drug court, and if so what the outcome had been.

Next, participants completed two scales measuring their perceptions of drug courts. The first contained a number of procedural justice questions that were adapted from the work of Wenzel (2002), and included items regarding the perceived trustworthiness, respect, and neutrality of drug courts. Participants rated their agreement with these items on a scale from 1 (strongly disagree) to 5 (strongly agree). An example of an item measuring perceived trustworthiness was "Drug courts are generally honest in the way they deal with people who have drug problems." Participants rated perceived respect responding to items such as "Drug courts respect the rights of citizens who have a drug problem," and they rated perceived neutrality with questions such as "Drug courts give equal consideration to the views of all Americans with drug problems."

The second set of items examined respondents' perceptions of drug courts using Ajzen's (1991) theory of planned behavior. Adapted from the work of Wiener, Baron-Donovan, and Gross (2005), these items tapped into deliberative attitudes, perceptions of social pressure (from family and friends—social norms), and the participants' perceptions of their own control. First, participants rated their explicit attitudes by answering "How would it make you feel to choose to make use of a drug court?" (–4, very displeased, to 4, very pleased) and then they supplied an importance rating for this feeling: "How important is this feeling in your decision whether to agree to use a drug court?" (–4, very unimportant, to 4, very important). Next respondents indicted how much social pressure they anticipated that they would experience from others by answering the questions "How would it make your close friends feel if you used a drug court?" and "How would it make

your family feel if you used a drug court?" (–4, very displeased, to 4, very pleased) Following each of these items were importance ratings, "How important would your family's feelings be in your decision about whether to make use of a drug court?" and "How important would your close friends' feelings be in your decision about whether to make use of a drug court?" (–4, very unimportant, to 4, very important). Finally, participants' reported their perceptions of self-control, answering "How much control do you have over your decision whether to use a drug court?" (–4, no control, to 4, complete control).

Participants then indicated whether they currently had or ever had a substance abuse problem, and responded to a number of questions regarding treatment not used in this survey. Finally, participants estimated the probability that they would ever make use of a drug court if the opportunity were offered on a Likert-type scale from –4 (very unlikely) to 4 (very likely).

Results

Participants who had indicated that they currently or previously had a substance abuse problem (N=166) were included in the analysis. For each of the attitude constructs borrowed from the Theory of Planned Behavior (i.e. deliberative attitudes, family's attitudes, and friends' attitudes), we calculated indices of explicit attitudes, family norms, and friend norms that ranged from highly important negative valence statements to highly important positively valence statements. First we recoded the importance ratings from 0 to 8 by adding 4 to each of the original importance ratings. Next, we multiplied each participant's pleasantness rating by that participant's 0–8 rating of the importance of that particular item. For example, to create a score for participants' deliberative attitudes toward drug courts, we multiplied their score from the item "How would it make you feel to make use of a drug court?" by their recoded rating of the importance of this feeling. This new measure could range from S32 (displeasing and very important) to 32 (very pleasing and very important). **Table 1** reports the means and standard deviations for the procedural justice scale items arranged in

Table 1. Descriptive statistics for each scale

Scale	*Reliability*	*Mean*	*Standard deviation*
Neutrality	α=0.86	3.24	0.86
Trustworthiness	α=0.83	3.47	0.88
Respect	α=0.76	3.22	0.93
Control	Single item	2.63	2.29
Deliberative Attitudes	Single item	3.72	17.09
Family Norms	Single item	5.63	17.02
Friend Norms	Single item	4.96	12.90

order of the scales that they purported to measure. Reliability statistics reported in Table 1 indicate more than adequate internal consistency reliability for the procedural justice measure. **Table 2** lists the correlations between the procedural justice scales, the attitude measures, and the outcome measure.

Procedural Justice

First, we conducted a step-wise regression model using neutrality, trustworthiness, and respect as predictors and likelihood of using a drug court as the criterion. **Table 3** displays the results, which produced a significant model, $F(3, 149)=5.07$, $p<.05$, but only trustworthiness contributed significantly to this model.

Table 2. Correlations between scales and dependent measure (likelihood of using a drug court)

	Neutrality	*Trustworthiness*	*Respect*	*Control*	*Deliberative Attitudes*	*Family Norms*	*Friend Norms*
Trustworthiness	*r*=0.86**						
Respect	*r*=0.79**	*r*=0.80**					
Control	*r*=0.26**	*r*=0.27**	*r*=0.24**				
Deliberative Attitudes	*r*=0.27**	*r*=0.30**	*r*=0.19*	*r*=_0.01			
Family Norms	*r*=0.24**	*r*=0.28**	*r*=0.17*	*r*=0.13	*r*=0.65**		
Friend Norms	*r*=0.18*	*r*=0.21**	*r*=0.12	*r*=0.11	*r*=0.51**	*r*=0.63**	
Decision to use drug court	*r*=0.17*	*r*=0.18*	*r*=0.08	*r*=0.33**	*r*=0.49**	*r*=0.38**	*r*=0.33**

* $p < .05$

** $p < .01$

Table 3. Regression results from procedural justice scales, theory of planned behavior scales, and combined scale

	Procedural justice		Planned behavior		Full model	
	β	$t(1, 149)$	β	$t(1, 150)$	β	$t(1, 148)$
Neutrality	0.06	0.40			0.03	0.40
Trustworthiness	0.18*	2.25			0.03	0.34
Respect	–0.16	–1.22			–0.01	–0.06
Control			–0.11	–1.58	–0.10	–1.42
Deliberative Attitudes			0.49*	6.89	0.49*	6.77
Family Norms			0.11	1.19	0.12	1.24
Friend Norms			0.10	1.22	0.11	1.33
Adjusted R-squared	R^2=0.03		R^2=0.24		R^2=0.23	

* $p<.05$

Planned Behavior

Next, we calculated a step-wise regression model using explicit attitudes, family norms, friend norms, and perceived behavioral control as predictors, and likelihood of using a drug court as the criterion. That analysis also resulted in a significant regression equation, $F(3, 150)=47.43$, $p<.001$ (see Table 3), but here only the offenders' explicit attitudes toward using drug courts contributed to the model.

Combined Model

We calculated one more step-wise regression model, this time using all seven predictors (i.e. neutrality, trustworthiness, respect, deliberative attitudes, family norms, friend norms, and perceived behavioral control) as predictors and likelihood of using a drug court as the criterion. This final regression allowed a comparison of the planned action approach and procedural justice approach in predicting likelihood to use drug courts. The results presented in Table 3 resulted in an overall significant model, $F(7, 148)=45.85$, $p<.001$, but once again only explicit attitudes contributed to it, suggesting that people's attitudes toward drug courts are the best single predictors of intended use.

Structural Equation Model

In order to obtain a clearer picture of the different contributions of the seven different constructs, we created and tested a structural equation model with likelihood to use a drug court as the outcome variable (see **Figure 1**). Using each procedural justice factor as a separate scale (neutrality, trustworthiness, and respect) produced a non-positive definite result due to severe multicollinearity. As such, we collapse all of our procedural justice variables into a single scale. The resulting model demonstrated adequate fit, with a comparative fit index (CFI) of 0.92 (a value greater than 0.9 shows adequate fit), a root square mean error approximation (RMSEA) value of 0.079 (numbers under 0.05 demonstrate good fit; numbers under 0.08 demonstrate adequate fit), and a χ^2 of 256.59 (p<0.01).

As seen in Figure 1, explicit user attitudes toward using drug court is the only variable that loaded significantly on the dependent variable of likelihood to make use of a drug court, with a value of β=0.81, p<.001. The paths predicting likelihood to use a drug court were non-significant for the one procedural justice scale

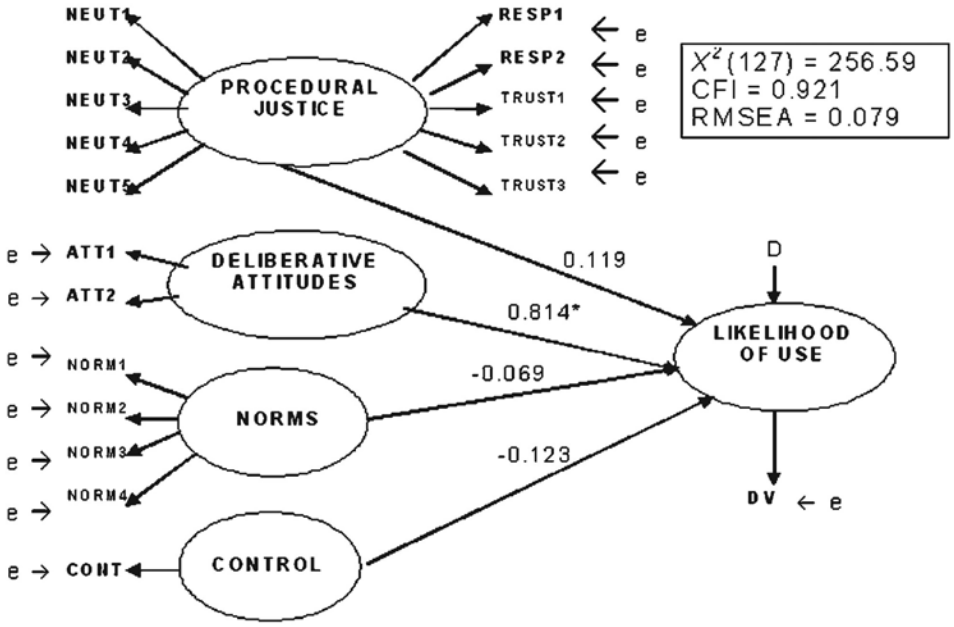

Figure 1. Structural equation model of variables contributing to the likelihood of making use of drug courts.

(β=0.12, p>0.05), norms of friends and family (β=–0.07, p>0.05), or control (β=–0.12, p>0.05). Taken together, these analyses suggest that only explicit individual attitudes contribute to the likelihood of making use of a drug court.

Discussion

Our results demonstrate that explicit attitudes are the best predictors of individuals' decisions to make use of drug courts. Surprisingly, no aspect of procedural justice predicted this decision when combined with factors from the theory of planned behavior. When procedural justice was considered alone, only trustworthiness predicted the likelihood to make use of a drug court.

Therefore, it seems that if we want to direct offenders into drug court programs, we should attempt to influence their explicit attitudes and not significant others' reactions toward drug courts. It might be that the criminal justice system already does this, because a drug court is usually a more attractive alternative than the other sanctions that offenders face. Offenders are more likely to feel positive about making use of a drug court because they wish to avoid prison or other penalties. However, it is quite possible that the criminal justice system tries to persuade offenders to participate in drug court via a social pressure route. While not definitive on this issue, these data draw into question the likely persuasiveness of that approach. A study designed to test appeals that aim to change both attitudes and social norms in the directions favoring drug courts would add significantly to our understanding of the process that is most persuasive to substance users.

The results of this study may shed some light on the inconsistency of the drug court evaluations. While Cooper (2003) reports data that find drug courts effective in reducing use and recidivism, others (Miethe et al., 2000) found little impact and even increased recidivism for drug court graduates. Perhaps offender attitudes (and their perceptions of trustworthiness) are moderators or even mediators of effectiveness. Future evaluation research should include measures of offender attitudes toward drug court and their ratings of procedural fairness in outcome studies. Perhaps drug

courts produce positive outcomes for those who have positive attitudes (and who find the courts trustworthy) and negative outcomes for those with negative attitudes (and who rate low drug courts' trustworthiness).

An unexpected finding in the current study resulted when we attempted to enter the three separate procedural justice factors (respect, neutrality, and trustworthiness) into a structural equation model. When we entered these factors into the model, the result was a non-positive definite model due to extreme collinearity. It seems that the three factors of procedural justice might not be as distinct as originally posited. After collapsing the factors into a single procedural justice factor, the model achieved good fit, and did not have collinearity problems. It might be that researchers should think of procedural justice, at least in the context of drug court use, as one composite factor, rather than three separate and distinct subcategories. Future research examining in more detail the measurement structure of procedural justice in this context might help explain the inconsistent findings for the impact of procedural justice as a predictor of drug court use.

In any event, our data lend support to the importance of considering drug users' attitudes toward drug court in studies of their perceptions of treatment and perhaps the efficacy of treatment. While the current study is relatively strong in ecological validity in the sense that it examined the attitudes that adult drug users held toward drug court, the sample was limited to adult self-reported violators who are eligible for Medicaid. None of the responders were currently involved in the criminal justice system. It is possible that users that are more affluent focus more on procedural justice issues than did these respondents. Replication with alternative samples would be useful, as would replication with a sample of current drug court participants. The latter investigation might also consider attitude, social norm, and procedural justice measures before and after offenders participate in drug court to determine how drug court participation influences these factors. Regardless of the outcomes of these future studies, the current investigation points out the importance of including attitude and procedural justice measures as defined in current social psychological theory in evaluations of participants' perceptions of drug courts and in studies of their effectiveness.

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